

FIG. 1

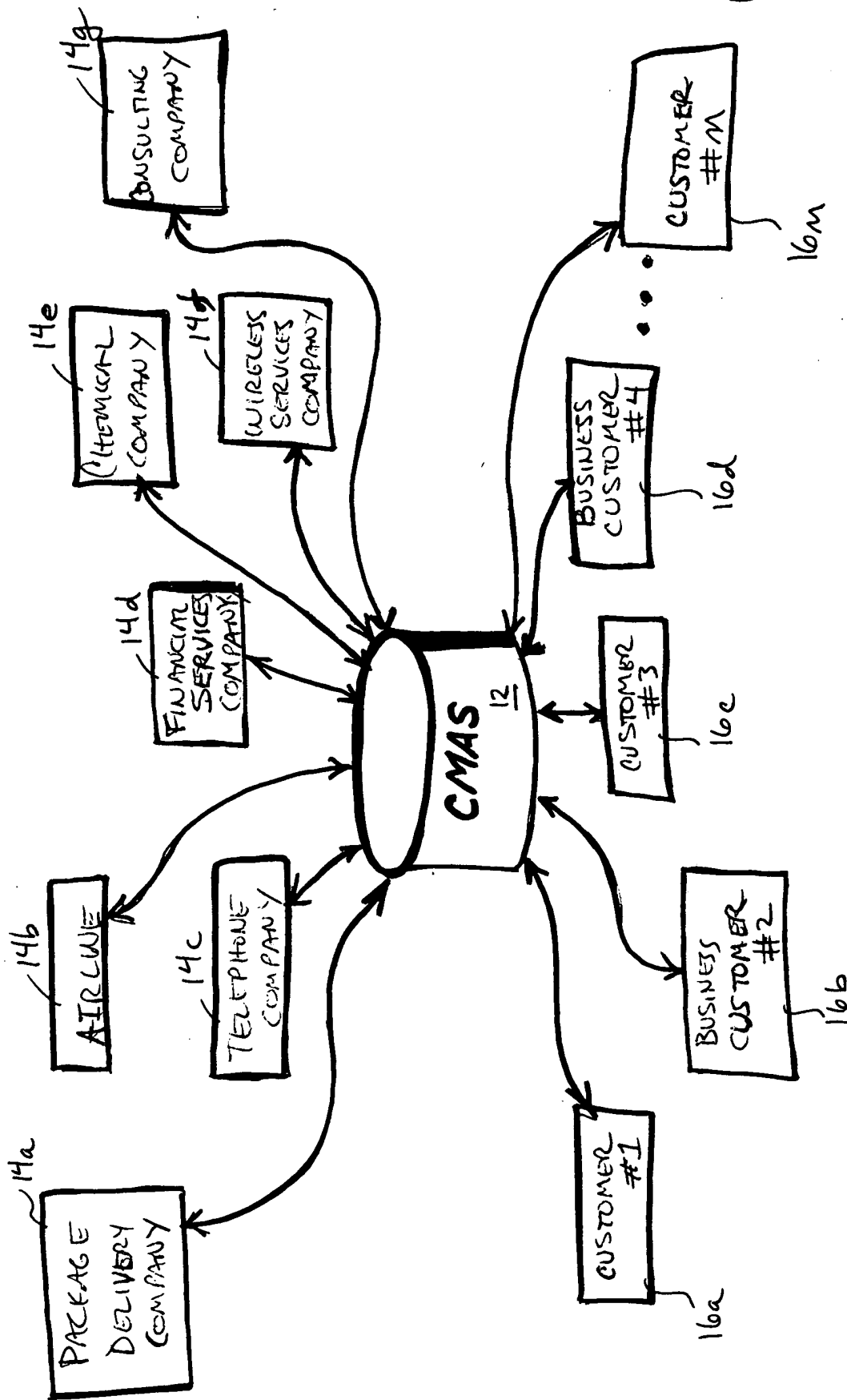


FIG. 1

http://63.79.1... Customer Messaging & Alerting Service

Welcome **Marc Smith**

Current Contact Information

20a Business Phone Number (678) 657-7777

20b AOL Instant Messenger ID marcsmith

20c Yahoo Instant Messenger ID marcsmith

20d MSN Instant Messenger ID marcsmith

20e Text Pager 40...570728@page.nextel.com

20f Mobile Phone Number (404)557-...

SAVE CANCEL

FIG. 2A

http://63.79.1... Customer Messaging & Alerting Service

Welcome **Marc Smith**

My Accounts

Provider	Account Number	Password	Alert Preference Stream
1. Delta Airlines	2028481168	---	Business Alerts
2. Schwab	42080020	---	Personal Alerts
3. United Airlines	13426592	---	Business Alerts
4. Eastman Chemical	3254258321	---	Business Alerts
5. DuPont	2425828652	---	Business Alerts
6. Dow	98348273	---	Business Alerts

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Save Cancel

FIG. 2B

http://63.79.101.53

Customer Messaging & Alerting Service

Welcome **Marc Smith**

Contact Preferences Stream Name: **Business Alerts**

Notification Method	Require Confirmation?	
	Yes	No
1. AOL Instant Messenger	<input type="radio"/>	<input type="radio"/>
2. Text Pager	<input type="radio"/>	<input type="radio"/>
3. Mobile Phone	<input type="radio"/>	<input type="radio"/>
4. <input type="text"/>	<input type="radio"/>	<input type="radio"/>
5. <input type="text"/>	<input type="radio"/>	<input type="radio"/>

**SAVE** **CANCEL**

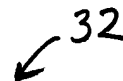
FIG. 2C

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Component	Feature	Example
Contact Profile	Information	Phone information, IM information, Pager information
Contact Preference	Mode of Contact	How the customer wants to be contacted
Contact Preference	Time of Contact	When the customer wants to be contacted
Contact Preference	Hours of the Day	What particular time is preferred
Contact Preference	Time Zone	EST, PST, GMT
Account	Provider	AIRLINE, PACKAGE DELIVERY CO., FINANCIAL SERVICES CO.
Other Preference	Personalization	Where can I personalize the service
Other Preference	Activity	Business Event, Personal Alerts
Other Preference	Language	Language preference
Service Preference	Definition	Selecting AOL/Yahoo IDs, Passwords
Service Preference	Company Selection	Entering information for various ACCOUNT NOS.

FIG. 2D

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**FIG. 3**

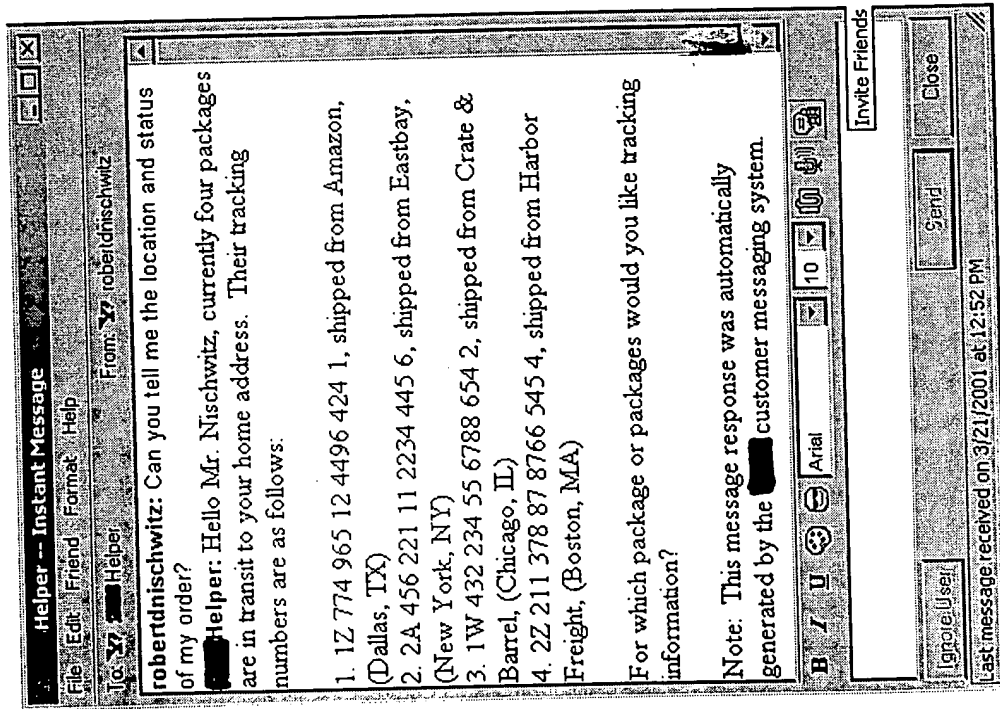


FIG. 4A

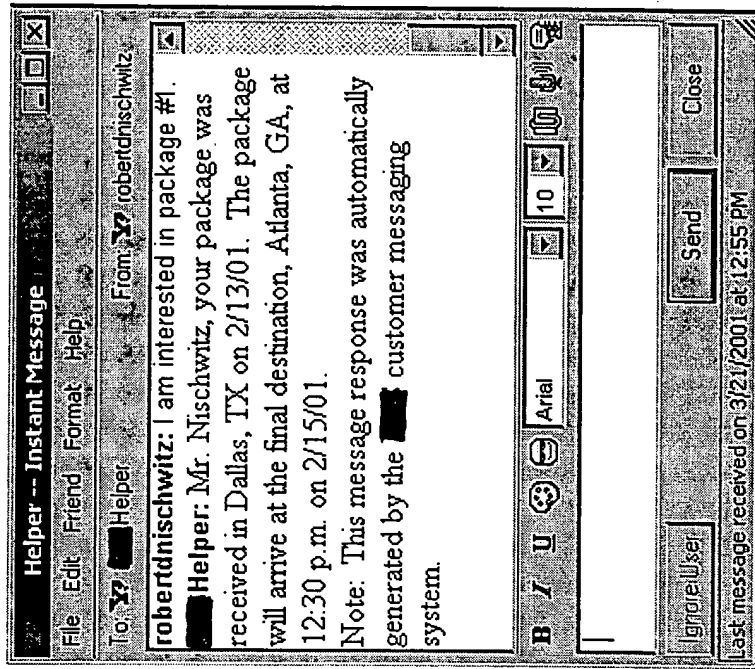


FIG. 4B

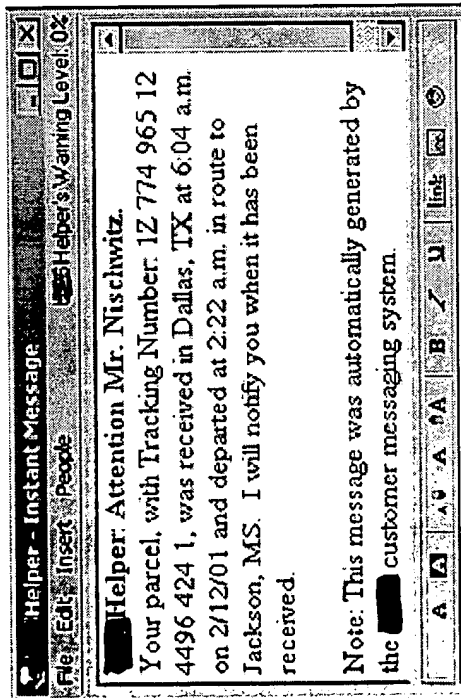


FIG. 4C

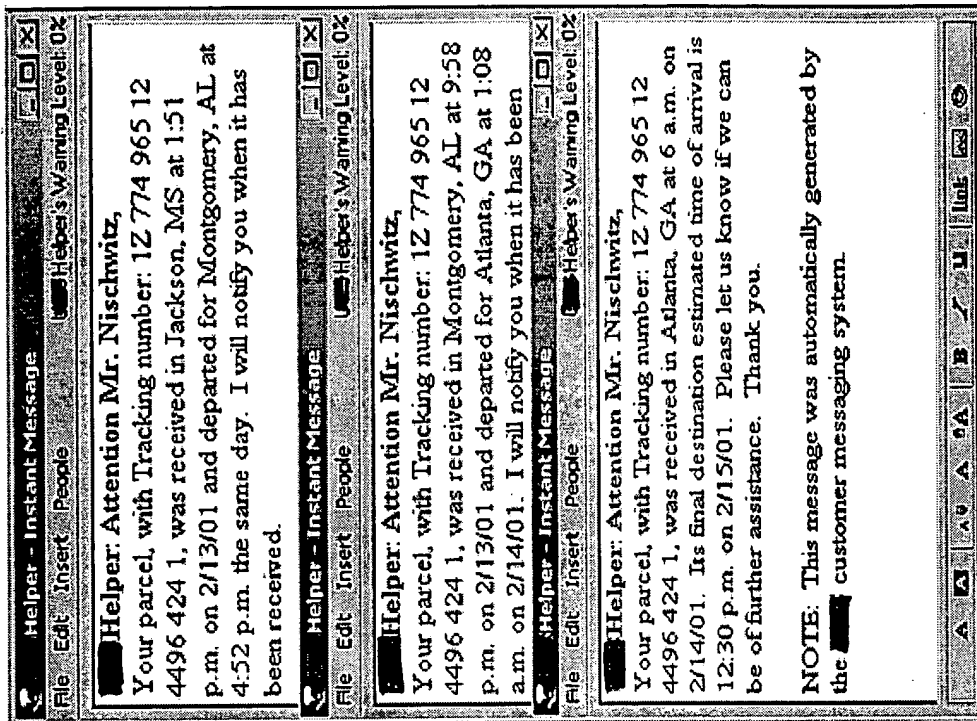
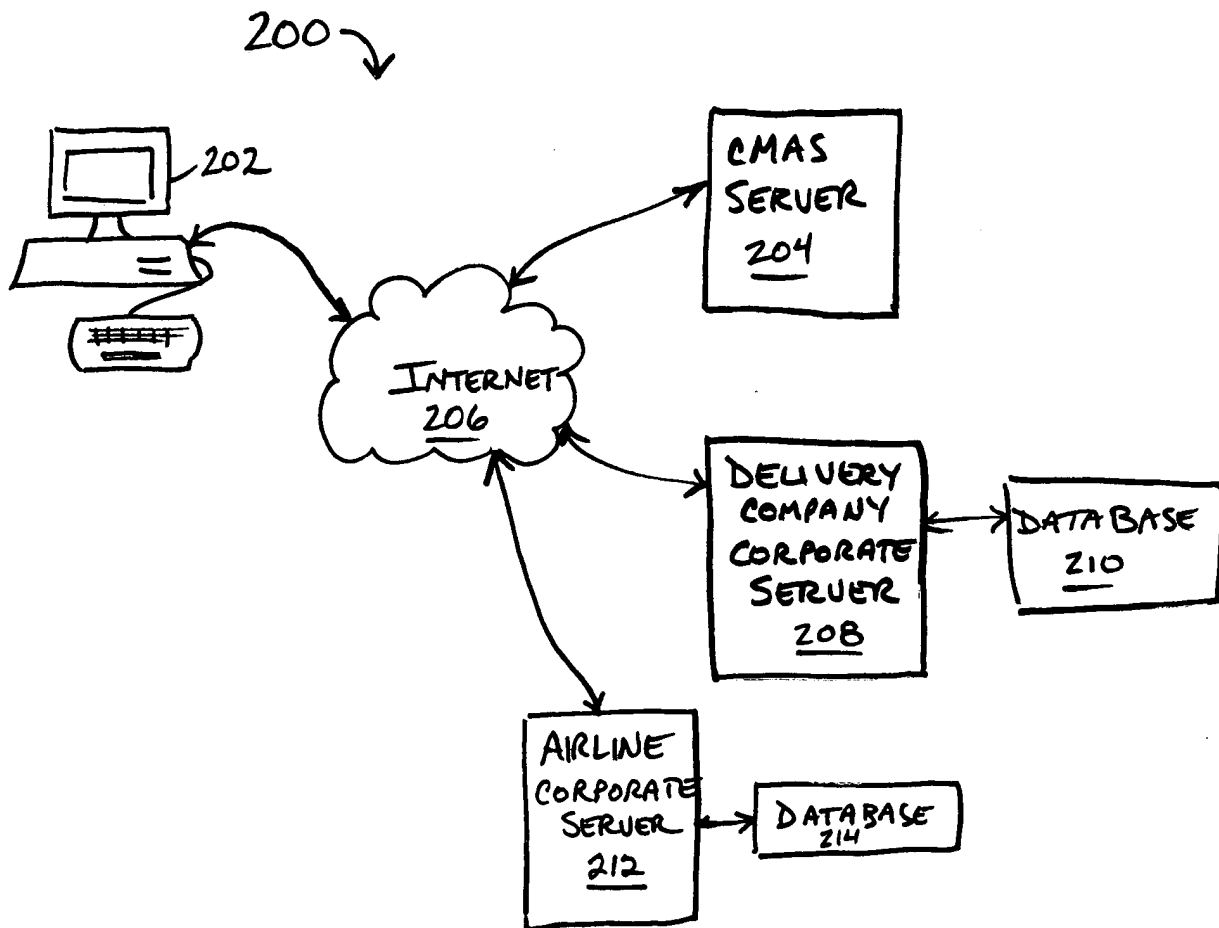
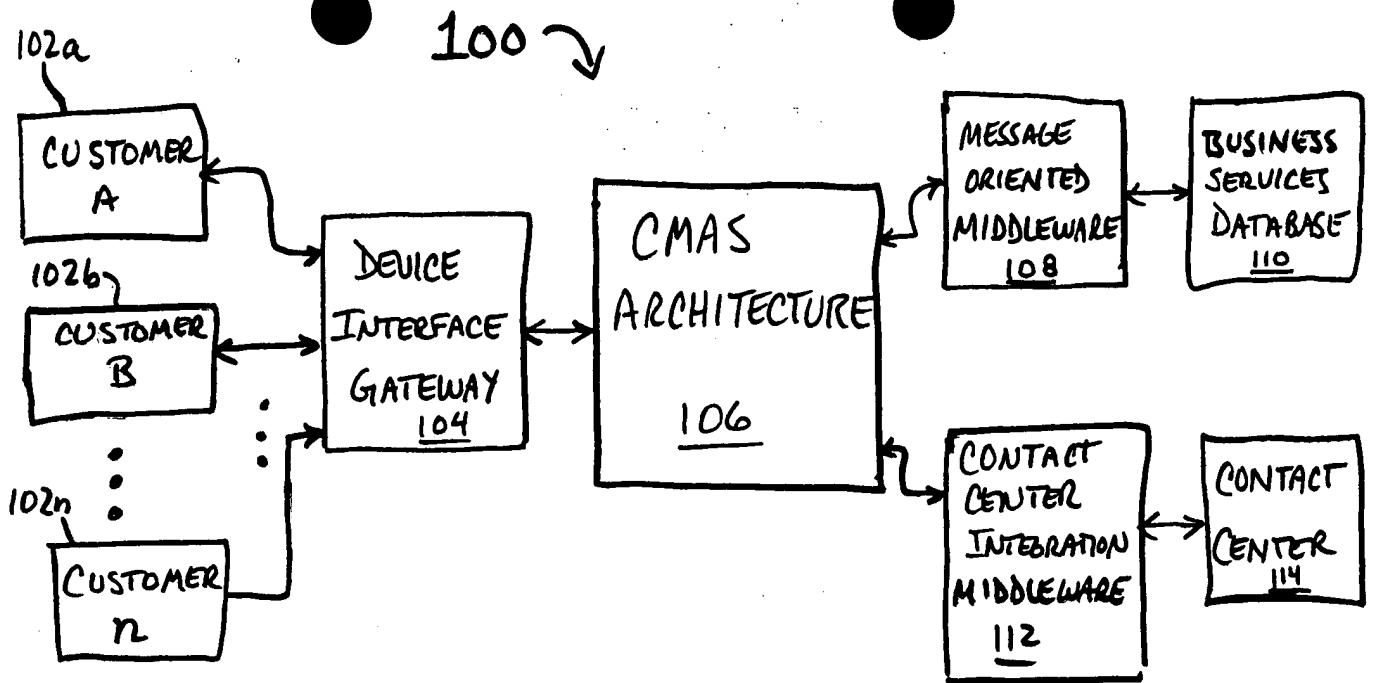


FIG. 4D



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# CMAS Application Architecture

Session / State / Connection Mgmt

Authentication & Entitlement

Natural Language Processing

Customer Intent Processor

Workflow Management

Personalization

Content Management

Alert Management  
- Presence detection  
- Delivery confirmation  
- Escalation

Customer Profile Management

Customer Profile Syndication

Transaction Management

Agent Queue Management

Networking (VPN or Private Network)

Operations Management  
- Monitoring  
- Logging  
- Auditing

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DEVICE INTERFACE GATEWAY

## USER INTERFACES

Phone  
- Voice Recognition  
- Text to speech  
- VOIP

Instant Message

Web  
Chat, and collaborative browsing

E-Mail

Kiosk

Wireless  
Phone, Blackberry, Pager

Handheld  
Palm, Handspring, CE, Ipaq, etc

## Business Services

### ERP

- Order status  
- Account Balance  
- Payment/Transaction History  
- Shipment status

### CRM Front Office

- Customer Care  
- Customer History  
- Sales (SFA)

### Product

- Configurations  
- Commerce Systems  
- MSDS and Product Specs

### Knowledge Base

- FAQ Responses

### Travel

- Reservations -  
- air, hotel, car, limo  
- Flight status

### Content Providers

- News, weather

### Other Systems

## Contact Center

Agent Queue Management

Context Management

Telephony Integration

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MESSAGE ORIENTED MIDDLEWARE

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CONTACT CENTER MIDDLEWARE

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FIG. 5B



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126      127      128      129      130

Device/Service	Native Authentication	CMAS/Secondary Authentication	Cookies	Other
Web Browser	Microsoft Passport	CMAS user ID/Password	Yes	None
WAP Phone	Varies	CMAS user ID/Password	Simulated	Security as provided by the Service provider
Cell Phone	Varies	CMAS user ID/Password	None	Security as provided by the Service provider
Instant Messenger	All require a userID/Password	CMAS user ID/Password	None	None
Windows CE hand held	Microsoft Passport	CMAS user ID/Password	Simulated	Security as provided by the Service provider
Cell Phone Based Pager	Varies	CMAS user ID/Password	None	Security as provided by the Service provider
Palm Hand held	Microsoft Passport	CMAS user ID/Password	Simulated	Security as provided by the Service provider
Two-Way Pagers	Varies	CMAS user ID/Password	None	Security as provided by the Service provider
Mobile Phone Voice Mail	Outbound from initial configuration	None	None	Security as provided by the Service provider
Interactive Pager	Outbound from initial configuration	None	None	Security as provided by the Service provider
Short Message Services	Outbound from initial configuration	None	None	Security as provided by the Service provider
Alpha/Numeric Pager	Outbound from initial configuration	None	None	Security as provided by the Service provider
Business Phone	Outbound from initial configuration	None	None	Security as provided by the Service provider
Business Voice Mail	Outbound from initial configuration	None	None	Security as provided by the Service provider
Home Number	Outbound from initial configuration	None	None	Security as provided by the Service provider
Alternative Business Contact	Outbound from initial configuration	None	None	Security as provided by the Service provider

**FIG. 5C**

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Service	Device	Presence Detection	Delivery Confirmation	Guaranteed Delivery	Receipt Acknowledge	
					Native 147	Manual 149
AOL	Any Device that has AOL Instant Messenger	✓	-	-	-	✓
Yahoo!	Any Device that has Yahoo Instant Messenger	✓	-	-	-	✓
Microsoft	Any Device that has MSN Instant Messenger	✓	-	-	-	✓
Pager	Interactive Pager	-	Varies	Some	Some	-
	Alpha/Numeric Pager	-	Varies	Some	-	✓
	Cell Phone Based Pager	-	Varies	Some	-	-
	Two-Way Pagers	-	Varies	Some	✓	-
Wireless enabled PDA	PDA	-	✓	Some	Some	✓
	Windows CE	-	✓	Some	Some	✓
Voice Mail	Mobile Phone Voice Mail	-	-	✓	-	-
	Business Voice Mail	-	-	✓	-	-
Voice Call	Business Phone	-	-	✓	-	✓
	Home Number	-	-	✓	-	✓
	Alternative Business Contact	-	-	✓	-	✓
	Mobile Phone	-	-	✓	-	✓
SMS	SMS Capable Device	-	Varies	✓	-	✓
WAP	WAP Micro-browser capable device	✓	✓	-	✓	-
	WAP Phone	-	✓	-	✓	-
Email	Email Client	-	✓	-	✓	✓

FIG. 5D

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Device 162	SMS 164	Email 166	IVR 168	Voice Mail 170	Instant Messenger 172
Web Phone	✓	✓	✓	✓	✓
Mobile Phone (without internet access)	✓	✓	✓	✓	✓
Touch Tone Phone			✓	✓	
Pulse Dial Phone				✓	
Personal Computer / Desktop		✓			✓
Windows CE Device		✓			✓
Interactive Pager		✓			
Palm OS Handheld		✓			✓

FIG. 5E

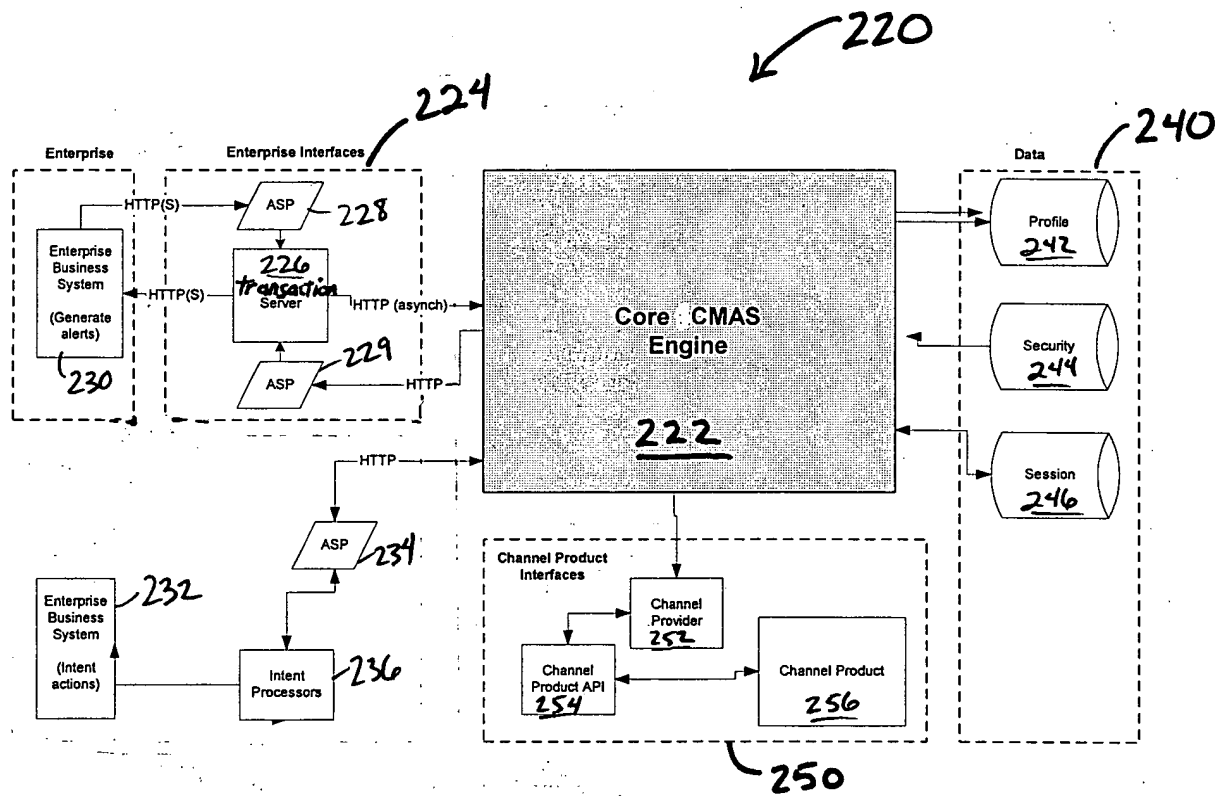


FIG. 6B

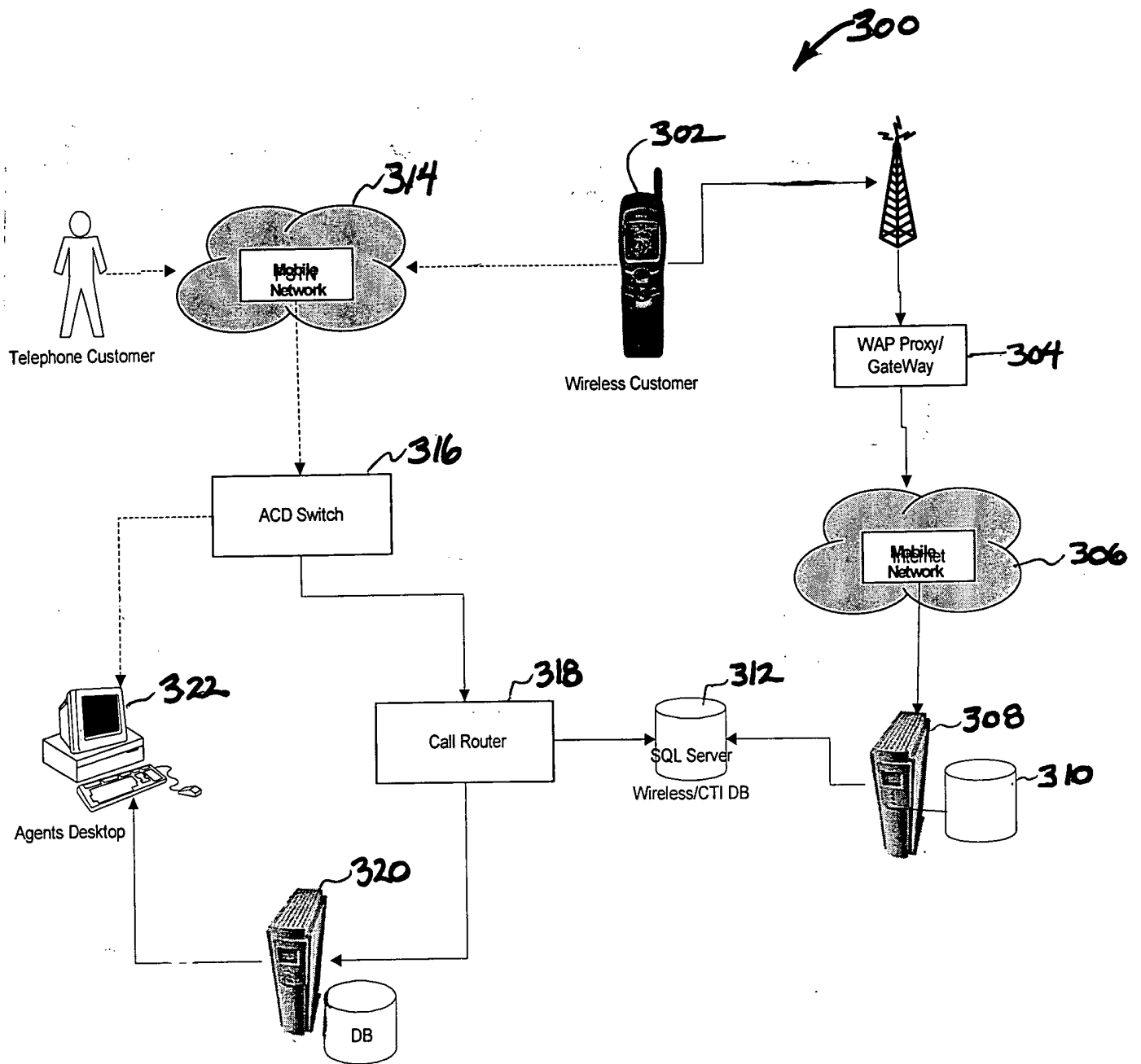


FIG. 7